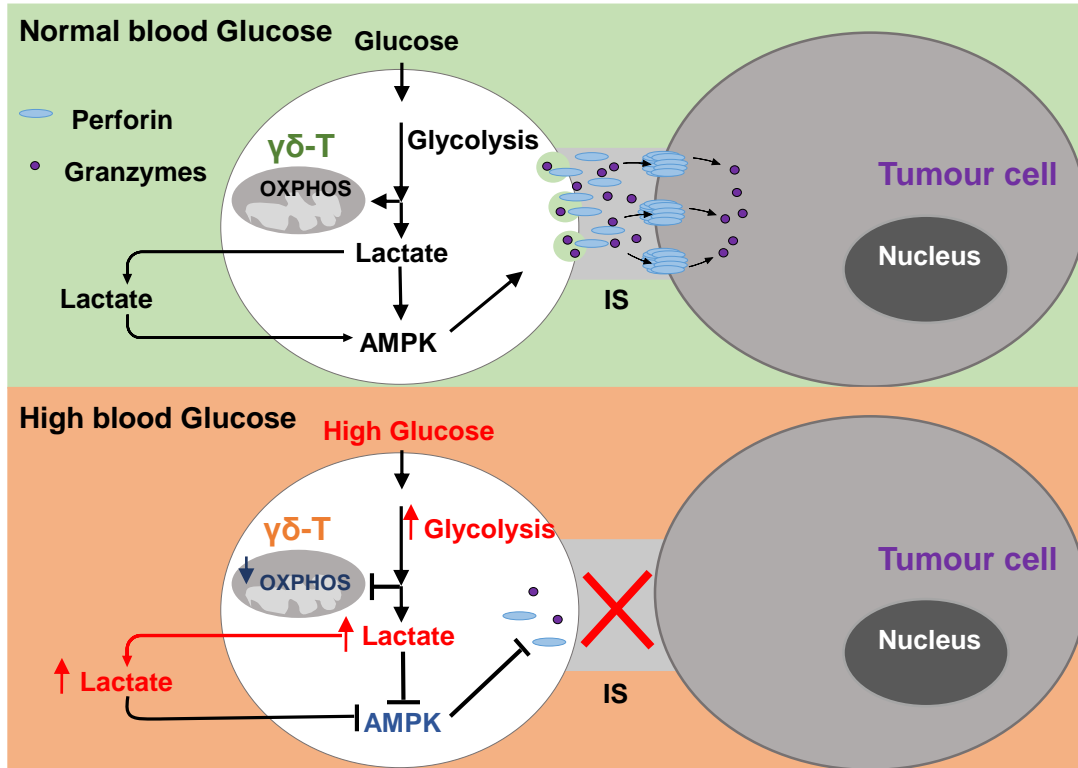


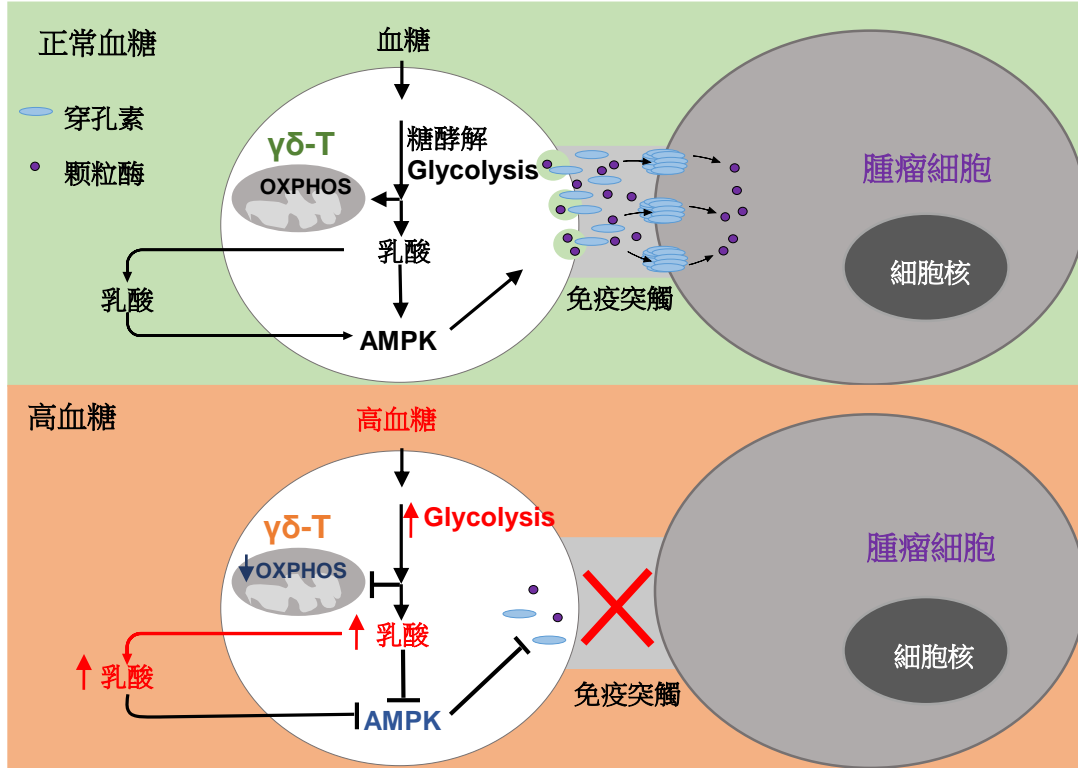
Graphical abstract



IS: Immunological Synapse; OXPHOS: Oxidative Phosphorylation;
AMPK: AMP-activated protein kinase.

1. High glucose induces the **defective antitumor activity** of $\gamma\delta$ -T cells;
2. High glucose decreases the **secretion of cytotoxic granules** through the **inhibition of lactate-AMPK-perforin/MTOC** pathway;
3. **Glucose control** or **metformin treatment** reverses the impaired antitumor activity of $\gamma\delta$ -T cells in diabetes.

圖文摘要



1. 高血糖降低 $\gamma\delta$ -T細胞的抗腫瘤活性
2. 高血糖通過抑制乳酸—AMPK—穿孔素／微管組織中心通路，從而減少細胞毒性顆粒酶的分泌
3. 控制血糖或者二甲雙胍治療可以改善糖尿病患者 $\gamma\delta$ -T細胞的抗腫瘤活性